

## REMARKS

Claims 1-10, 12-66, and 68-131 are pending in this application. No claims are being amended in this response.

In the nonfinal Office Action mailed on June 16, 2005, the Examiner rejected all pending claims as being unpatentable over Grefenstette et al. in view of Brady. This rejection is respectfully traversed.

Claim 1 recites:

"A computer-implemented method for unconscious data retrieval, comprising:  
extracting at least one query key from a primary document;  
responsive to a connection with at least one data source being available, pre-fetching at least one query result by:  
    querying the at least one data source with the at least one query key; and  
    receiving at least one query result from at least one data source;  
    evaluating the received at least one query result; and  
    displaying at least one received query result;  
wherein extracting, querying, receiving, and evaluating are performed asynchronously with respect to user interaction with the primary document;  
and wherein displaying the at least one received query result is performed without regard to whether a connection with a data source is available."

As stated in a previous response to office action, the invention claimed herein performs extracting, querying, receiving, and evaluating asynchronously with respect to user interaction with the primary document. The user therefore does not have to do anything to trigger the operations, and indeed need not even be aware of the operations. Furthermore, pre-fetching at least one query result is performed responsive to a connection with a data source being available. Finally, query results are displayed for the user, for example at a later time, without regard to whether or not the connection with the data source is available.

As discussed previously, a benefit of this invention is that the query result can be obtained without user intervention whenever a connection to the data source is available. Once the query result has been obtained, it is available to be shown to the user whenever the user looks at the primary document. The query result can be shown to the user even if, at the time it is being shown, no connection to the data source is available (since the query result has been pre-fetched).

Thus, the present invention provides a mechanism whereby data retrieval can take place automatically and asynchronously, without the need for the user to do anything to trigger such operations, and indeed without the need for the user to even be aware of the operations. Results of the data retrieval can then be shown to the user at a time that is convenient to the user, and without requiring the user to wait for retrieval to occur (since it has already occurred).

In the Office Action, the Examiner agrees that Grefenstette does not explicitly teach the limitations of "responsive to a connection with at least one data source being available, pre-fetching at least one query result", "wherein extracting, querying, receiving, and evaluating are performed asynchronously with respect to user interaction with the primary document", and "wherein displaying the at least one received query result is performed without regard to whether a connection with a data source is available." The Examiner asserts that Brady teaches these limitations, and that therefore the Grefenstette and Brady limitations, taken in combination, render the claimed invention unpatentable.

On the contrary, Brady fails to teach the cited limitations. Brady merely describes a database for collecting and reporting on real estate data in a manner that allows collection of data from disparate sources. A primary goal of Brady is to maintain confidentiality even when the database is accessible via a public network such as the Internet. As such, Brady is directed toward a completely different problem than that of the present invention, and fails to disclose any of the limitations quoted above with respect to the claims of the present application.

Brady makes no mention of any technique of pre-fetching by querying, receiving, and evaluating asynchronously with respect to user interaction with a primary document. The term "pre-fetching" does not appear anywhere in Brady, and there is no mention of any conceptual equivalent to pre-fetching. In particular, Brady offers no hint or suggestion of performing a pre-fetching operation responsive to a connection with a data source being available, as claimed herein.

At paragraph [0114], referenced by the Examiner, Brady discusses off-line execution of batch query processing requests at specified time intervals. However, this refers to processing requests that are requested by a user. The relevant section reads as follows:

"The system also supports batch queries that are requested by a user. In response to such a request, a set of standard reports for predetermined queries at regular time intervals (quarterly, semi-annually, annually) are provided... Requests for batch query processing are preferably automatically executed off-line at the time intervals specified."

(Paragraphs [0112] to [0114]; emphasis added). Since such requests are requested by the user, they can only be performed after the user has made such requests. By definition, such batch query processing requests are not pre-fetching operations, because they can only be performed after a user has requested them, and thereby such requests fail to anticipate the limitations claimed herein that recite that the operations are performed asynchronously with respect to user interact.

Paragraph [0302], also referenced by the Examiner, merely describes the operation of PRWEBREP and prWEB\_report procedures, which build a query string based on the user's search criteria. Again, there is no mention of pre-fetching or asynchronous operation. In fact, since the query string is based on the user's search criteria, the report procedures of Brady are necessarily performed after the user specifies such criteria. This is in contrast to the claims of the present application, which explicitly state that "extracting, querying, receiving, and evaluating are performed asynchronously with respect to user interaction with the primary document" (emphasis added).

In addition, a review of the entire specification of Brady reveals no hint or suggestion of pre-fetching in the manner claimed herein, nor of asynchronous operation as claimed herein.

As discussed previously, an advantage of the asynchronously performed steps and pre-fetching steps of the claimed invention is to obtain useful information before the user asks for it, so that such information is readily available when the user inter-

acts with the primary document. Since Brady fails to describe any technique of asynchronous operation and/or pre-fetching as claimed herein, Brady inherently fails to provide the advantages conferred by the present invention.

Claims 2-10, 12, 26-29, 32-53, 56-60 depend from claim 1 and therefore incorporate all of the limitations of claim 1.

Claims 62-66, 68, 80-101, 110-111, 113-123, and 126-130 recite limitations similar to those discussed above in connection with claim 1. Accordingly the arguments presented above with respect to claim 1 apply to these claims as well.

Claim 13 recites:

"A computer-implemented method for unconscious data retrieval, comprising:  
extracting at least one query key from a primary document;  
querying at least one data source with the at least one query key;  
receiving at least one query result from at least one data source;  
evaluating the received at least one query result;  
storing the evaluated at least one query result; and  
subsequently performing the steps of:  
receiving a query request from a user;  
displaying a preview of at least one query result item responsive to the received query request;  
receiving a selection of one of the previewed items;  
retrieving the selected item; and  
displaying a representation of the selected item;  
wherein extracting, querying, receiving, and evaluating are performed without user interaction."

By performing extracting, querying, receiving, and evaluating without user interaction, the claimed method provides a mechanism for obtaining useful information for the user without requiring the user to do anything.

The Examiner did not provide any specific grounds for rejecting claim 13, merely stating that the claim is rejected "on grounds corresponding to the arguments

given above for rejected claims 1 and 12.” As stated above with respect to claim 1, neither of the cited references provides any hint or suggestion of performing such actions without user interaction. In fact, as discussed above, Brady explicitly states that its off-line execution of batch query processing is performed in response to user requests, and that its building of a query string is performed based on the user’s search criteria. Accordingly, neither of the cited references, taken alone or in any combination, discloses the claimed invention.

Claims 14-17 depend from claim 13 and therefore incorporate all of the limitations of claim 13.

Claims 18-25, 30-31, 54-55, 61, 69-79, 102-109, 112, 124-125, and 131 recite limitations similar to those discussed above in connection with claim 13. Accordingly the arguments presented above with respect to claim 13 apply to these claims as well.

In view of the above remarks, Applicants respectfully submit that the invention claimed herein is patentably distinct from the cited references, taken alone or in any combination.

Accordingly, consideration of this application and the early allowance of all claims herein are requested.

Should the Examiner wish to discuss the above amendments and remarks, or if the Examiner believes that for any reason direct contact with Applicants’ represen-

tative would help to advance the prosecution of this case to finality, the Examiner is invited to telephone the undersigned at the number given below.

Respectfully submitted,  
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